SEQUENCE LISTING

<110> CHOO, YEN
ISALAN, MARK

<120> NUCLEIC ACID BINDING PROTEINS

<130> 71278/273884

<140> 09/646,353
<141> 2000-09-17

<150> GB 9805576.7
<151> 1998-03-17

<150> GB 9806895.0
<151> 1998-03-31

<150> GB 9807246.5
<151> 1998-04-03

<160> 80

<170> PatentIn Ver. 2.1

<210> 1
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1
Pro Tyr Lys Cys Pro Glu Cys Gly Lys Ser Phe Ser Gln Lys Ser Asp
1 5 10 15

Leu Val Lys His Gln Arg Thr His Thr Gly
20 25

<210> 2
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 2
Pro Tyr Lys Cys Ser Glu Cys Gly Lys Ala Phe Ser Gln Lys Ser Asn
1 5 10 15

Leu Thr Arg His Gln Arg Ile His Thr Gly Glu Lys Pro
20 25

<210> 3
<211> 5
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 3
Thr Gly Glu Lys Pro
1 5

<210> 4
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (5)
<223> 5-Methyl Cytosine, Thymine or Cytosine

<400> 4
gcggnggcg 9

<210> 5
<211> 10
<212> PRT
<213> Artificial Sequence

B1

<220>
<223> Description of Artificial Sequence: Zinc Finger peptide

<400> 5
Arg Glu Asp Val Leu Ile Arg His Gly Lys
1 5 10

<210> 6
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 6
Arg Ala Asp Ala Leu Met Val His Lys Arg
1 5 10

<210> 7
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 7
Arg Gly Pro Asp Leu Ala Arg His Gly Arg
1 5 10

<210> 8
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 8
Arg Ala Asp Ala Leu Met Val His Lys Arg
1 5 10

<210> 9
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

B1

<400> 9
Arg Gly Pro Asp Leu Ala Arg His Gly Arg
1 5 10

<210> 10
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 10
Arg Glu Asp Val Leu Ile Arg His Gly Lys
1 5 10

<210> 11
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 11
ctcctgcagt tggacctgtg ccatggccgg ctgggccgca tagaatggaa caactaaagc 60

<210> 12
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (8)..(11)
<223> GGMC or GMGC, where M is 5-Methyl Cytosine

<400> 12
tatagtgnnn nggcgtgtca cagtcagtcc acacacgtc 39

<210> 13
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

B1

<400> 13
ggcccggcg 9

<210> 14
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 14
gcgccggcg 9

<210> 15
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (10)
<223> 5-Methyl Cytosine

<400> 15
tatagtgggn cggcgtgtca cagtcagtcc acacacgtc 39

<210> 16
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (9)
<223> 5-Methyl Cytosine

<400> 16
tatagtggng cggcgtgtca cagtcagtcc acacacgtc 39

<210> 17
<211> 39
<212> DNA
<213> Artificial Sequence

B1

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (10)
<223> 5-Methyl Cytosine, Thymine or Cytosine

<400> 17
tatagtgggn cggcgtgtca cagtcagtcc acacacgtc 39

<210> 18
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (9)
<223> 5- Methyl Cytosine, Thymine or Cytosine

<400> 18
tatagtggng cggcgtgtca cagtcagtcc acacacgtc 39

<210> 19
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 19
tatagtgggt cggcgtgtca cagtcagtcc acacacgtc 39

<210> 20
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger peptide

<400> 20
Arg Ser Asp Glu Leu Thr Arg
1 5

B1

<210> 21
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger peptide

<400> 21
Arg Ser Asp Glu Leu Thr Arg
1 5

<210> 22
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger peptide

<400> 22
Arg Ser Asp Glu Leu Thr Arg
1 5

<210> 23
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger peptide

<400> 23
Arg Ser Asp Glu Leu Thr Arg
1 5

<210> 24
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger peptide

<400> 24
Arg Ser Asp Glu Leu Thr Arg
1 5

B1

<210> 25
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger peptide

<400> 25
Arg Ser Asp Asp Leu Ser Gln
1 5

<210> 26
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger peptide

<400> 26
Arg Ser Asp Asp Leu Thr Arg
1 5

<210> 27
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger peptide

<400> 27
Arg Ser Asp Asp Leu Thr Gly
1 5

<210> 28
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger peptide

<400> 28
Arg Ser Asp His Leu Ser Ala
1 5

<210> 29
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger peptide

<400> 29
Arg Ser Asp Asp Leu Ser Thr
1 5

<210> 30
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger peptide

<400> 30
Arg Lys His His Arg Lys Glu
1 5

<210> 31
<211> 7

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger peptide

<400> 31
Tyr Asp Gly Ala Arg Lys Arg
1 5

<210> 32
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger peptide

<400> 32
His Asn Arg Asp Arg Lys Arg
1 5

<210> 33
<211> 7
<212> PRT
<213> Artificial Sequence

B1

<220>
<223> Description of Artificial Sequence: Zinc finger peptide

<400> 33
Thr Asn Ser Thr Arg Thr Lys
1 5

<210> 34
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger peptide

<400> 34
Arg Asn Asp His Arg Lys Thr
1 5

<210> 35
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (4)
<223> 5-Methyl Cytosine

<400> 35
gggncggcg 9

<210> 36
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 36
gggccggcg 9

<210> 37
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (3)
<223> 5-Methyl Cytosine

<400> 37
ggngcggcg 9

<210> 38
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 38
ggcgcggcg 9

<210> 39
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 39
Met Ala Glu Glu Lys Pro
1 5

<210> 40
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic zinc finger peptide

<220>
<221> MOD_RES
<222> (-13)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (-11)..(-8)
<223> Any amino acid and this range may encompass 2-4 residues

<220>
<221> MOD_RES
<222> (-6)..(-4)
<223> Any amino acid and this range may encompass 2-3 residues

<220>
<221> MOD_RES
<222> (-2)..(3)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (5)..(6)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (8)..(10)
<223> Any amino acid

<400> 40
Xaa Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Phe Xaa Xaa Xaa Xaa
-10 -5 -1 1

Xaa Leu Xaa Xaa His Xaa Xaa Xaa His
5 10

<210> 41
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 41
Thr Gly Glu Lys
1

<210> 42
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> misc_feature
<222> (5)
<223> Pro may or may not be present

<400> 42
Thr Gly Glu Lys Pro
1 5

<210> 43
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 43
gcggcggcg 9

<210> 44
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 44
gcggtggcg 9

<210> 45
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 45
gcgtgggcg 9

<210> 46
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (4)
<223> 5-Methyl Cytosine

<400> 46
gggncggcg 9

<210> 47
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 47
gggccggcg 9

<210> 48
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (3)
<223> 5-Methyl Cytosine

<400> 48
ggngcggcg 9

<210> 49
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 49
ggcgcggcg 9

<210> 50
<211> 9
<212> DNA
<213> Artificial Sequence

B1

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (3)
<223> 5-Methyl Cytosine

<400> 50
ggnccggcg 9

<210> 51
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 51
gggtcggcg 9

<210> 52
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 52
ggtgcggcg 9

<210> 53
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (4)
<223> 5-Methyl Cytosine

<400> 53
gggncggcg 9

<210> 54
<211> 9
<212> DNA
<213> Artificial Sequence

B1

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 54
gggtcggcg 9

<210> 55
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (5)
<223> 5-Methyl Cytosine

<400> 55
gcggnggcg 9

<210> 56
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 56
gcggccgcg 9

<210> 57
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (5)
<223> 5-Methyl Cytosine

<400> 57
gcggncgcg 9

<210> 58
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (5)
<223> 5-Methyl Cytosine

<400> 58
gcggncgcg 9

<210> 59
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc Finger peptide

<400> 59
Met Ala Glu Glu Arg Pro Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg
1 5 10 15

Arg Phe Ser Arg Ser Asp Glu Leu Thr Arg His Ile Arg Ile His Thr
20 25 30

<210> 60
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc Finger peptide

<220>
<221> MOD_RES
<222> (16)..(19)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (21)..(22)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (24)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (25)
<223> Arg or Lys

<400> 60
Gly Gln Lys Pro Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser Xaa
1 5 10 15

Xaa Xaa Xaa Leu Xaa Xaa His Xaa Xaa Thr His Thr
20 25

<210> 61
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc Finger peptide

<400> 61
Gly Glu Lys Pro Phe Ala Cys Asp Ile Cys Gly Arg Lys Phe Ala Arg
1 5 10 15

Ser Asp Glu Arg Lys Arg His Thr Lys Ile His Leu Arg Gln Lys Asp
20 25 30

<210> 62
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 62
Arg Gly Asp Ala Leu Thr Ser His Glu Arg
1 5 10

<210> 63
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 63
Arg Val Asp Ala Leu Glu Ala His Arg Arg
1 5 10

<210> 64
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 64
Arg Glu Asp Ala Leu Ile Arg His Gly Lys
1 5 10

<210> 65
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc Finger peptide

<400> 65
Glu Lys Arg His His Lys Arg
1 5

<210> 66
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc Finger peptide

<400> 66
Gln Ser Leu Asp
1

<210> 67
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (29)
<223> 5-Methyl Cytosine

<400> 67
gacgtgtgga ctgactgtga cacgccggnc cactata 37

<210> 68
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc Finger peptide

<400> 68
Arg Lys Arg Ala Gly Asp Tyr
1 5

<210> 69
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc Finger peptide

<400> 69
Arg Thr Leu Asp
1

<210> 70
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (29)
<223> 5-Methyl Cytosine

<400> 70
gacgtgtgga ctgactgtga cacgccgrnc cactata 37

<210> 71
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc Finger peptide

<400> 71
Arg Lys Arg Asp Arg Asn His
1 5

<210> 72
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc Finger peptide

<400> 72
Gly Thr Leu Asp
1

<210> 73
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (29)
<223> 5-Methyl Cytosine

<400> 73
gacgtgtgga ctgactgtga cacgccgrnc cactata 37

<210> 74
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc Finger peptide

<400> 74
Lys Thr Arg Thr Ser Asn Thr
1 5

<210> 75
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc Finger peptide

<400> 75
Ala Ser Leu His
1

<210> 76
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<220>
<221> modified_base
<222> (28)
<223> 5-Methyl Cytosine

<400> 76
gacgtgtgga ctgactgtga cacgccgnrc cactata 37

<210> 77
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc Finger peptide

<400> 77
Thr Lys Arg His Asp Asn Arg
1 5

<210> 78
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc Finger peptide

<400> 78
Thr Ser Leu Asp
1

<210> 79
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthteic oligonucleotide

<220>
<221> modified_base
<222> (29)
<223> 5-Methyl Cytosine

<400> 79
gacgtgtgga ctgactgtga cacgccganc cactata 37

<210> 80
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic nucleotide sequence

<400> 80
tatagtggcg cggcgtgtca cagtcaggtg ggccggcgtg tcacagtcag tccacacgtc 60